

Abstract #42724

Researcher-driven campaigns engage *Nature's Notebook* participants in scientific data collection

[Theresa M. Crimmins](#)¹, Andrew J. Elmore², Alfredo Huete³, Stephen Keller⁴, Estelle Levetin⁵, Jeffrey Luvall⁶, Orrin Myers⁷, Cathlyn D. Stylinski², Peter K. Van de Water⁸ and Ana Vukovic⁹, (1)USA National Phenology Network, Tucson, AZ, (2)Appalachian Laboratory, University of Maryland Center for Environmental Science, Frostburg, MD, (3)University of Technology, Sydney, Australia, (4)University of Maryland Center for Environmental Science, Frostburg, MD, (5)University of Tulsa, (6)NASA, (7)University of New Mexico, Albuquerque, NM, (8)CSU Fresno, (9)University of Belgrade, Serbia

Background/Question/Methods

One of the many benefits of citizen science projects is the capacity they hold for facilitating data collection on a grand scale and thereby enabling scientists to answer questions they would otherwise not been able to address. *Nature's Notebook*, the plant and animal phenology observing program of the USA National Phenology Network (USA-NPN) suitable for scientists and non-scientists alike, offers scientifically-vetted data collection protocols and infrastructure and mechanisms to quickly reach out to hundreds to thousands of potential contributors.

The USA-NPN has recently partnered with several research teams to engage participants in contributing to specific studies. In one example, a team of scientists from NASA, the New Mexico Department of Health, and universities in Arizona, New Mexico, Oklahoma, and California are using juniper phenology observations submitted by *Nature's Notebook* participants to improve predictions of pollen release and inform asthma and allergy alerts. In a second effort, researchers from the University of Maryland Center for Environmental Science are engaging *Nature's Notebook* participants in tracking leafing phenophases of poplars across the U.S. These observations will be compared to information acquired via satellite imagery and used to determine geographic areas where the tree species are most and least adapted to predicted climate change.

Results/Conclusions

Researchers in these partnerships receive benefits primarily in the form of ground observations. Launched in 2010, the juniper pollen effort has engaged participants in several western states and has yielded thousands of observations that can play a role in model ground validation. Periodic evaluation of these observations has prompted the team to improve and enhance the materials that participants receive, in an effort to boost data quality. The poplar project is formally launching in spring of 2013 and will run for three years; preliminary findings from 2013 will be presented. Participants in these special campaigns benefit through direct engagement in science.

This form of researcher partnership has now been successfully pilot-tested and implemented in several instances, and provides a template for future research project campaigns.

Title: Researcher-driven campaigns engage *Nature's Notebook* participants in scientific data collection

Preferred Presentation Format: Oral

Submitter's E-mail Address: theresa@usanpn.org

Place in an Organized Oral Session: Yes

Organized oral session preference: The Climate Change Response Framework: Integrating Tools, Partnerships, and Actions to Support Climate-Smart Conservation and Forest Management

Themes:

1. Ecological applications, tools, and techniques - education: tools & technology
2. Ecological applications, tools, and techniques - education: community-based learning
3. Ecological applications, tools, and techniques - citizen science

First author

Presenting Author

Theresa M. Crimmins

Email: theresa@usanpn.org

USA National Phenology Network

1955 E. 6th Street

Tucson AZ 85721

USA

Would you like to volunteer as a session presider? No

Would you like to volunteer to judge the Buell-Braun student award applications? No

Second author

Andrew J. Elmore

Email: andrew@elmore.cc

University of Maryland Center for Environmental Science

Appalachian Laboratory

301 Braddock Rd

Frostburg MD 21532
USA

Would you like to volunteer as a session presider? Yes

Would you like to volunteer to judge the Buell-Braun student award applications? No

Third author

Alfredo Huete

Email: alfredo.huete@uts.edu.au -- Will not be published

University of Technology
Sydney
Australia

Would you like to volunteer as a session presider? No

Would you like to volunteer to judge the Buell-Braun student award applications? No

Fourth author

Stephen Keller

Email: skeller@umces.edu -- Will not be published

University of Maryland Center for Environmental Science
Frostburg MD

Would you like to volunteer as a session presider? No

Would you like to volunteer to judge the Buell-Braun student award applications? No

Fifth author

Estelle Levetin

Email: estelle-levetin@utulsa.edu -- Will not be published

University of Tulsa

Would you like to volunteer as a session presider? No

Would you like to volunteer to judge the Buell-Braun student award applications? No

Sixth author

Jeffrey Luvall

Email: jluvall@nasa.gov -- Will not be published

NASA

Would you like to volunteer as a session presider? No
Would you like to volunteer to judge the Buell-Braun student award applications? No

Seventh author

Orrin Myers
Email: OMyers@salud.unm.edu -- Will not be published

University of New Mexico
Albuquerque NM 87131
USA

Would you like to volunteer as a session presider? No
Would you like to volunteer to judge the Buell-Braun student award applications? No

Eighth author

Cathlyn D. Stylinski
Email: cstylinski@umces.edu

University of Maryland Center for Environmental Science
Appalachian Laboratory
301 Braddock Road
Frostburg MD 21532
USA

Would you like to volunteer as a session presider? No
Would you like to volunteer to judge the Buell-Braun student award applications? No

Ninth author

Peter K. Van de Water
Email: pvandewater@csufresno.edu -- Will not be published

CSU Fresno

Would you like to volunteer as a session presider? No
Would you like to volunteer to judge the Buell-Braun student award applications? No

Tenth author

Ana Vukovic
Email: pazisadana@yahoo.com -- Will not be published

University of Belgrade

Serbia

Would you like to volunteer as a session presider? No

Would you like to volunteer to judge the Buell-Braun student award applications? No